

apex, with the angles acute; dorsal obtusely truncated. Anterior tarsi dilated and fringed.

Obydos.

28. *Colobothea forcipata*, n. sp.

C. gracilis, postice valde attenuata, nigra, vertice thoraceque vitta lata communi cinerea; elytris cinereo nebulosis, relictis plagis lateralibus et vitta lata apicali nigris; antennis nigris, articulo 6^{to} albo annulato; maris segmento ventrali terminali forcipato. Long. 4-5½ lin. ♂.

Head black, forehead spotless, vertex with a broadish ashy line, which continues along the middle of the thorax, enlarging posteriorly, the rest of the surface of the thorax deep black. Antennæ black, sixth joint alone marked with a white ring. Elytra gradually attenuated from base to apex, the latter sinuate-truncate, sutural angle prominent, external spiniform; surface punctured, setose, and marked with an ashy cloud extending from the scutellum to near the apex, and emitting several irregular branches; the apical part is crossed by a broad black vitta, the apex itself being edged, as usual, with white. Body beneath ashy; sides of thorax and abdomen with a broad yellowish vitta. Legs ashy, spotted with black.

♂. Terminal ventral segment with each side produced into a long, compressed, incurved, horny lobe, the apex of which is obliquely truncated; dorsal plate obtusely rounded at apex.

Eggs, rare.

[To be continued.]

XI.—*Diagnoses of new Forms of Mollusca from the West Coast of North America, first collected by Col. E. Jewett.* By PHILIP P. CARPENTER, B.A., Ph.D.

[Concluded from p. 182.]

Mangelia variegata.

M. testa valde attenuata, tenui, parva, pallide carnea, rufo-fusco normaliter bizonata, interdum unizonata, seu zonis interruptis; vertice nucleoso conspicuo, anfr. uno et dimidio, apice mamillato; anfr. norm. vi., subrotundatis, suturis valde impressis; costis radiantibus ix., angustis; costulis spiralibus crebris, validioribus, in spira circ. x., costas superantibus; apertura valde elongata; canali brevi, aperto; labro tenui, juxta suturam conspicue arcuato; labio tenui. Long. 31, long. spir. 17, lat. 1 poll., div. 22°.

Variat costis crebrioribus, sculptura minus expressa.

Hab. Sta. Barbara (Jewett).

Mangelia (? *variegata*, var.) *nitens*.

M. testa *M. variegatae* simili, sed nitentiore, fascia alba et altera

rufo-fusca attingente spiram ascendentibus. Long. .25, long. spir. .15, lat. .08, div. 20°.

Hab. Sta. Barbara (*Jewett*), rare.

Mangelia angulata.

M. testa parva, rufo-purpurea, vix gracili, epidermide tenui fugaci; anfr. nucl. iii., helicoideis, primum lævibus, dein cancellatis, apice mamillato; anfr. norm. iv., convexis, suturis impressis, in medio spiræ obtusangulatis; costis radiantibus circ. xii., acutioribus; costula spirali circa angulum, inter costas subobsoleta; tota superficie tenuiter spiraliter crebrisulcata, sulculis sub lente sæpius bifidis; apertura pyriformi, canali longiore, recto, aperto; labro acuto, postice conspicue sinuato; columella haud contorta; labro obsoleto. Long. .35, long. spir. .18, lat. .13, div. 30°.

Hab. Sta. Barbara (*Jewett*).

Myurella simplex.

M. testa rufo-cinerea, minore, minus tereti, epidermide tenui; anfr. xii., planatis; fascia suturali valida, nodosa, tuberculis ovalibus crebris validioribus (anfr. penult. circa xv.) ornata; testa adolescente costulis radiantibus, postea evanescentibus; striolis antice et postice spiralibus, circa peripheriam sæpe obsoletis; basi rotundata; canali brevissimo, alte emarginato; carina supra canalem acuta, columellam plicante; labro acuto, vix undato. Long. 1.03, long. spir. .76, lat. .27, div. 20°.

Variat tuberculis subobsoletis.

Hab. Sta. Barbara (*Jewett*); S. Pedro (*Cooper*).

Odostomia inflata.

O. testa majore, tenui, pallide cinerea, epidermide cinerea induta; vert. nucl. subito immerso; anfr. norm. iv., rapidissime argenti-bus, subplanatis, suturis impressis; tota superficie minutissime et confertissime spiraliter striolata; umbilico nullo; basi et apertura valde elongatis; labro acuto; labio tenuissimo; plica acuta, transversa, parietem attingente; columella valde arcuata, antice effusa. Long. .26, long. spir. .09, lat. .14, div. 60°.

Variat spira elatiore. Long. .24, long. spir. .11, lat. .13, div. 45°.

Variat quoque striolis subobsoletis.

Hab. Sta. Barbara (*Jewett*); Farraleone Islands, in cavities, on *Haliotis* (teste R. D. Darbishire); near San Francisco (*Rowell*); Neeah Bay (*Swan*).

Chemnitzia crebrifilata.

C. testa satis tereti, subalbida, haud regulari; anfr. nucl. ii., helicoideis; decliviter sitis, margines spiræ parum excurvatos paullum superantibus; norm. viii., quorum primi subrotundati, ultimi vix planati; suturis valde distinctis; cost. rad. circ. xxiv., subrectis, acutioribus, angustis, interdum attingentibus, anfr. ultimo cre-

brioribus minus expressis, circa basim prolongatam haud subito evanescentibus; lirulis spiralibus, in spira circ. viii., rotundatis, expressis, anfr. ult. supra costas subnodulosis, circa basim crebrioribus; peritremate continuo; columella vix torta, haud plicata; labio distincto. Long. .22, long. spir. .17, lat. .07, div. 18°.

Hab. Sta. Barbara, 1 specimen (*Jewett*).

403 b. *Chemnitzia* (?*torquata*, var.) *stylina*.

C. testa *C. torquatae* simili, sed valde teretiore, gracillima, interdum subdiaphana; anfr. nucl. ii., decliviter sitis, margines spiræ fere parallelos vix superantibus; norm. xii., angustis, subplanatis, suturis distinctis; costis radiantibus circ. xxiii., latis, declivibus, testa juniore continuis, adulta fascia haud sculpta suprasuturali separatis; interstitiis parvis, haud sculptis; basi rotundata, haud sculpta; columella parum torta. Long. .32, long. spir. .27, lat. .8, div. 10°.

Hab. Sta. Barbara (*Jewett*); Monterey (*Cooper*).

Chemnitzia Virgo.

C. testa parva, alba, gracili, *stylina*; anfr. nucl. ii., decliviter sitis, margines spiræ subparallelos haud superantibus; norm. viii., subrotundatis, suturis distinctis; costulis radiantibus circ. xviii., angustis, acutioribus, sæpe attingentibus, circa peripheriam haud subito evanidis, interstitiis subæqualibus alte spiraliter sulcatis, sulcis circ. viii., latera costarum crenulantibus, costas haud superantibus; basi valde rotundata, curta, haud sculpta; axi lacunato; peritremate vix continuo; columella recta. Long. .18, long. spir. .14, lat. .05, div. 12°.

Hab. "Sta. Barbara," 1 specimen (*Jewett*).

Dunkeria laminata.

D. testa satis elevata, rufo-fusca, fasciis pallidioribus interdum cincta; anfr. nucl. ii., helicoideis, valde decliviter sitis, margines spiræ subrectos haud superantibus; norm. viii., subrotundatis, suturis impressis; costis spiralibus rotundatis, in spira iv., aliisque suturalibus vix rotundatis, interstitiis minoribus impressis; super eas laminis radiantibus acutioribus circ. xxx., circa basim rotundatam tenuiter continuis; liris spiralibus basalibus circ. viii., obtusis, columellam versus subflexuosam obsoletis; peritremate continuo; labio appresso. Long. .25, long. spir. .18, lat. .07, div. 20°.

Hab. Sta. Barbara (*Jewett*); San Diego (*Cooper*).

This beautiful Fenelloid species may be regarded as the type of the group *Dunkeria*.

Eulima Thersites.

E. testa parva, curtissima, albida, arcuata, valde distorta; marginibus spiræ dextro subrecto, sinistro valde excurvato; anfr. nucl. ? (decollatis); norm. vi., lævibus, subplanatis, suturis distinctis; basi valde arcuata; apertura subovali, dextrorsum producta; peri-

tremate continuo, valde calloso; labro sinuato. Long. ·21, long. spir. ·13, lat. ·09, div. 40°.

Hab. Sta. Barbara, 1 specimen (*Jewett*).

Preeminent for aberration among the distorted Eulimidæ. A second specimen occurred from an uncertain source.

Opalia bullata.

O. testa minore, alba, subdiaphana, turrata, gracili; marginibus spiræ subrectis; tota superficie minutissime et creberrime spiraliter striolata; vertice nucleoso declivi, celato; dein anfr. ii., globosis, radiatim haud sculptis; dein v. normalibus, planatis, suturis vix impressis; lirulis radiantibus circ. xxvi., haud nisi in anfr. primis expressis, circa basim irregulariter rotundatam ad axim continuis; serie bullularum suturalium anfr. primis e lirulis extantibus formata, postea lirulis haud convenientibus, anfr. penult. circ. xvii., planatis, super suturas parieti appressis, interstitiis haud infossis; basi subangulata, haud costata; apertura subovali, sinistrorsum subplanata; peritremate continuo, calloso; labro haud sinuato. Long. ·3, long. spir. ·21, lat. ·09, div. 20°.

Hab. Sta. Barbara, one specimen (*Jewett*).

422. *Cerithiopsis purpurea.*

C. testa compacta, haud gracili, marginibus spiræ parum excurvatis; purpurea seu fusco-purpurea, circa peripheriam pallidiore; anfr. nucl. ? ii., lævibus; norm. vii., planatis, suturis impressis; seriebus iii. nodulorum minorum supra costulas spirales minores, ad intersectiones costularum radiantium circ. xxiii., lineis fere rectis, ad suturas interruptis, spiram ascendentium sitis; interstitiis impressis, quadratis; costulis suturalibus ii. haud nodulosis; basi rotundata, antice lirulis paucis expressis inter eas et costulas suturales vix sculpta; apertura subquadrata; columella torta, emarginata. Long. ·29, long. spir. ·19, lat. ·1, div. 20°.

Hab. Sta. Barbara (*Jewett*); Monterey, San Diego (*Cooper*).

423. *Cerithiopsis fortior.*

C. testa *C. purpureæ* simili, sed sculptura multo fortiore, basi pallida; seriebus nodulorum spiralibus testa adolescente ii., postea iii.; costis radiantibus circ. xiii., interstitiis magnis; costis suturalibus validis, subnodosis; costa basali valida. Long. ·3, long. spir. ·2, lat. ·11, div. 26°.

Hab. Sta. Barbara, 1 specimen (*Jewett*).

439. *Marginella subtrigona.*

M. testa *M. Jewettii* simili, sed multo curtior, latior; antice valde angustata, postice valde tumente; labro postice minus prolongato; plicis iv., validioribus, parietali una. Long. ·14, long. spir. ·01, lat. ·11, div. 130°.

Hab. Sta. Barbara (*Jewett*).

440. *Marginella regularis*.

M. testa M. Jewettii simili, sed multo minore, paullum angustiore; tenui, nitidissima, crystallina, omnino diaphana; labio magis calloso. Long. .13, long. spir. .01, lat. .09, div. 120°.

Hab. Sta. Barbara (*Jewett*); coast of California south from Monterey, beach to 20 fathoms; Catalina Island, 10–20 fathoms, State Coll. no. 398 *a* (*Cooper*).

453. *Amycla tuberosa*.

A. testa A. minori simillima, sed vertice nucleoso tuberoso; anfr. iv., tumidis, rapide augmentibus; apice minimo, margines spiræ rectos parum superante, interdum subdecliviter sito; testa adulta interdum unicolore, livida seu aurantiaca; plerumque albida, rufo-fusco varie picta, seu maculata, seu nebulosa, seu strigata strigis radiantibus seu flexuosis, seu varie penicillata, sæpe fascia tessellata subsuturali; anfract. norm. v., planatis, suturis distinctis; basi subangulata; apertura pyriformi, canali satis prolongato, arcuato; labro intus acuto, deorsum quasi tumidiore, postice sinuato, intus circ. octodentato; labio parum conspicuo, vix rugulato; columella torta, axi antice striato; superficie lævi, seu interdum minutissime sub lente radiatim striolata; epidermide cornea, tenui, subdiaphana, spiraliter sub lente minutissime striolata: operculo Nassæformi, parvo, marginibus irregulariter serratis, cicatrice bilobata. Long. .32, long. spir. .18, lat. .14, div. 30°.

Hab. Sta. Barbara, recent and fossil (*Jewett*); coast of California north to Monterey; Catalina Island, 8–10 fathoms (*Cooper*).

As this belongs to a group of closely allied species of Nassoid Columbellæ, a minute diagnosis is given. The fossil specimens are larger, and have the remarkable nucleus more perfect, than any of the recent shells yet seen. In appearance it scarcely differs from the small variety of the Mediterranean *A. minor*, Scac.; but that (with *A. corniculata*) has a Chrysodomoid nucleus, the Californian an Alaboid.

? *Anachis penicillata*.

?*A. testa* parva, Metuloidea, turrata, albida, rufo-fusco plus minusve penicillata; anfr. nucleosis ii., tumidis, helicoideis, apice mamillato; norm. vi., tumidis, suturis valde impressis; costis radiantibus circ. xii., angustis, expressis; lirulis spiralibus extantibus, in spira plerumque vi. supra costas transeuntibus; apertura pyriformi, antice effusa; labro postice sinuato. Long. .21, long. spir. .13, lat. .08, div. 25°.

Hab. Sta. Barbara (*Jewett*); S. Diego, Catalina Island, shore to 10 fathoms (*Cooper*).

Neither of the specimens sent is quite mature. The mouth is that of an adolescent *Anachis*, but the sculpture is Metuloid.

Siphonalia fuscotincta.

S. testa minima, turrata, albida, apicem versus fusco tincta; anfr. nucl. ii., compactis, subplanatis, apice mamillato; norm. iv., convexis, suturis impressis; costis radiantibus rotundatis, tumentibus, basim versus evanidis, interstitiis undulatis, subæquantibus; lirulis crebris spiralibus, costas superantibus; apertura pyriformi, in canalem brevem apertum contortum producta; labro acuto; labio haud conspicuo; columella canalem versus valde contorta. Long. .17, long. spir. .1, lat. .08, div. 32°.

Hab. Sta. Barbara (*Jewett*).

The unique specimen is like a minute edition of *Siphonalia Kelletii*, but does not accord with the young of that or of any other species known in the region. It is probably not mature.

XLI.—*Diagnoses of new Forms of Mollusca collected by Col. E. Jewett on the West Tropical Shores of North America.* By PHILIP P. CARPENTER, B.A., Ph.D.

Rissoina expansa.

R. testa magna, lata, tenuisculpta, alba, nitente, subdiaphana; marginibus spiræ parum excurvatis; anfr. nucl. lævibus, vertice mamillato; norm. v., planatis, suturis distinctis; costulis radiantibus circ. xxiv., obtusis, haud extantibus, interstitia æquantibus, peripheriam versus evanidis; circa basim productam striis spiralibus expressis; medio lævi; apertura valde expansa, semilunata; labro subantice producto, varicoso, antice et postice alte sinuato; labio calloso. Long. .35, long. spir. .18, lat. .17 poll., div. 30°.

Hab. Mazatlan (teste *Jewett*).

This fine species is the largest known in the fauna. It most resembles *R. infrequens*, C. B. Ad., which was described from a dead shell.

Mangelia hamata.

M. testa carneo-aurantiaca, satis turrata, marginibus spiræ excurvatis; anfr. nucl. ii. globosis, tenuissime cancellatis, apice mamillato; norm. vi., subelongatis, in spira tumentibus, subangulatis, suturis impressis; costis radiantibus x.–xii., acutioribus, validis, circa basim prolongatam continuis; interstitiis concavis; lirulis spiralibus filosis, distantibus, supra costas transeuntibus, in spira iii.–iv.; apertura subelongata, quasi hamata, intus lævi, intense colorata; labro acuto, dorsaliter varicoso, postice valde sinuato. Long. .24, long. spir. .13, lat. .1, div. 25°.

Hab. Panama (teste *Jewett*).

This very beautiful species is easily recognized by the varicose lip, sloping off to a sharp edge; by the deeply cut posterior notch, giving the smooth mouth a hooked appearance; by the